Patent claims

1. A method for identifying the rotation of a stepper motor comprising a rotor provided with a motor coil driving at least one hand of a timepiece whereby a drive voltage pulse (1) and a first detection voltage pulse (3) is delivered to the motor coil and whereby the position of the rotor is determined with the aid of the first pulse response to this first detection voltage pulse (3), characterized in that
a second detection voltage pulse (4) with a polarity opposite to the one of the first detection voltage pulse (3) is delivered to the motor coil and a second pulse response to the second detection voltage pulse (4) is additionally used to determine the position of the rotor and/or
a stabilization voltage pulse (2) with a polarity opposite to the one of the drive voltage pulse (1) and preceding the first detection voltage pulse (3) is delivered to the motor coil.

2. A method according to claim 1, whereby the position of the rotor is determined from comparison of the pulse responses.

3. A method according to claim 2, whereby the amplitudes of the pulse responses are compared to one another.

4. A method according to claim 3, whereby a deviation from the actual position of the rotor relative to the required position is detected when the difference of the amplitudes of the pulse responses exceeds a predetermined threshold.

5. A method according to one of the previous claims, whereby detection voltage pulses (3, 4) are delivered several drive voltage pulse periods (T_1) after the drive voltage pulse (1).

6. A method according to one of the previous claims, whereby the detection voltage pulse periods (T_3, T_4) are about one tenth of the drive voltage pulse periods (T_1).

7. A method according to one of the previous claims, whereby the second detection voltage pulse (4) will deliver several periods of detection voltage pulses (T_3, T_4) after the first detection voltage pulse (3).

8. A method according to one of the previous claims, whereby the stabilization voltage pulse (2) follows the drive voltage pulse (1).

9. A method according to one of the previous claims, whereby the stabilization voltage pulse (2) is delivered a few drive voltage pulse periods (T_1) after the drive voltage pulse (1).

10. A method according to one of the previous claims, whereby the stabilization voltage pulse duration (T_2) is approximately 10 percent to 50 percent of the drive voltage pulse duration (T_1).